**Remarks**

Claims 1-3, 5-20 and 23-25 are pending in this application and stand rejected by the Examiner. Claims 1, 24, and 25 have been amended. Support for the amendment can be found throughout the Specification, and in particular, on page 2, lines 15-20.

***Rejection under 35 USC 103(a)***

Claims 1-3, 5-7, 14-26 and 24 are rejected under 35 U.S.C. §103(a) as obvious over Reeves et al. (US 5,491,015) in view of Fetterman (5,178,176). The Examiner cites Reeves to teach an article "for interaction with hands or feet . . . (which broadly encompasses medical drapes)". Applicants respectfully disagree. Reeves discloses a slip control article for use on equipment such as gymnastic equipment, and tools or sports equipment with leather grips. One skilled in the art would consider sports equipment nonanalogous art to medical drapes used in surgical environments.

Further, Reeves discloses protrusions made of a hard, durable material (such as polycarbonate) which are incompressible and non-collapsible. See, e.g., Col. 6, lines 30-50. The Examiner relies on the statement in col. 6, line 20 that the protrusions can be made of foam. Foam is generally defined as "a substance that is formed by trapping many gas bubbles in a liquid or solid" (see Wikipedia Dictionary, April 5, 2006 attached). Use of the term "foam" does not inpute whether the material used to make the foam is hard or soft; for example, a hard material can be used to form a rigid, hard foam.

Applicants note that the use of flexible materials in Reeves is directed to the backing, which Reeves does teach should be soft and flexible. See, e.g., col. 5, lines 23-33. In contrast, Reeves specifies that the protrusions should be hard and highly durable. Thus, while the materials taught by Reeves for the protrusions are thermoplastic, they cannot be considered to be soft and flexible. Rather, modification of Reeves to use flexible materials for the protrusions would not accomplish Reeves' objectives of high friction with high durability for the applications contemplated.

The Examiner acknowledges that Reeves fails to teach the coefficient of friction in wet and dry conditions and relies on Fetterman for that disclosure. Fetterman discloses a tip for a crutch made of polyurethane and/or rubber with varying coefficients of friction. As discussed above, Reeves requires protrusions made of a

hard material such as polycarbonate. One skilled in the art would not be motivated to modify the stem materials of Reeves with the materials provided in Fetterman. Thus, Fetterman is not properly combinable with Reeves and further does not cure the deficiencies of Reeves.

The Office Action further rejected claims 8-13, 17-18, 20 and 25-27 under 35 U.S.C. §103(a) as obvious over Reeves et al. (US 5,491,015) in view of Fetterman (5,178,176) and further in view of Crawley et al. (US 5,948,707). The Office Action recognizes that Reeves and Fetterman fail to disclose stems on both sides of the substrate or the stem density.

The addition of Crawley does not address any of the deficiencies of Reeves and Fetterman as applied to the claims. For that reason alone, Applicant respectfully submits that claims 8-13, 17-18, 20 and 25-27 are patentable over the combination of Reeves in view of Fetterman and Crawley. Moreover, the Crawley reference discloses certain non-slip, waterproof and water permeable fabrics made by applying a discontinuous coating of "dots" or other such shapes on one surface of a permeable film (see Crawley, e.g., Abstract). Crawley does not teach or suggest stems formed integrally with the backing layer. Rather, use of stems formed integrally with the backing layer would destroy the functionality of Crawley. Crawley teaches an elastomeric material with high MVTR to allow moisture permeability through the uncoated portions. Using stems integral with the backing layer would form a continuous coating of material that would defeat the moisture permeability taught by Crawley.

In light of the complete absence of any teaching or suggestion of soft and flexible stems in either the Reeves or Fetterman disclosures, Crawley is inadequate to render the subject matter of the rejected claims obvious. As discussed above, the Examiner has failed to point to any motivation in Crawley to combine the references to come up with integrally formed stems of elastomeric material.

Finally, Applicants note that none of the references teach a reinforcing layer between the first and second backing layers as provided in claim 11.

Applicants additionally note that this is the Applicants' fourth nonfinal office action citing the same references, and rejections over these same references have been withdrawn in prior office actions. For example, the rejections over Crawley were first overcome in Applicant's response filed October 6, 2003 to the nonfinal Office

Action mailed June 3, 2003. The rejections to Reeves were withdrawn based on Applicants' response filed December 21, 2004 to the nonfinal office action mailed July 21, 2004.

For at least the foregoing reasons, Applicants submit that the rejected claims are patentable over Reeves et al. (US 5,491,015) in view of Fetterman (5,178,176) and further in view of Crawley et al. (US 5,948,707). Reconsideration and withdrawal of the rejections based on the above references are requested.

**Conclusion**

All outstanding objections and rejections are believed to have been met and overcome. If a telephonic conference with Applicants' undersigned representative would be useful in advancing the prosecution of the present application, the Examiner is invited to contact the undersigned at (651) 733-2180. A notice of allowance for all pending claims is respectfully solicited.

Respectfully submitted,

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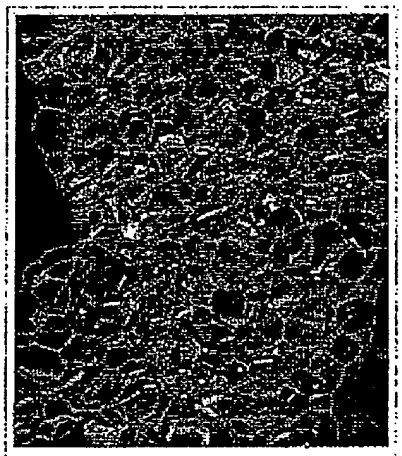
# Foam

From Wikipedia, the free encyclopedia

The most general definition of **foam** is a substance that is formed by trapping many gas bubbles in a liquid or solid. It can also refer to anything that is analogous to such a phenomenon, such as quantum foam. Often people mean polyurethane foam (foam rubber), Styrofoam or some other manufactured foam when they are using the term.



Foam

From the early 20th century, various types of specially manufactured solid foams came into use. The low density of these foams made them excellent as thermal insulators and flotation devices, and their lightness and compressibility made them ideal as packing materials and stuffings. Some liquid foams also found uses in extinguishing fires, especially oil fires.

Foam, in this case meaning "bubbly liquid", is also produced as an often unwanted by-product in the manufacture of various substances. For example, foam is a serious problem in the chemical industry, especially for biochemical processes. Many biological substances, for example proteins, easily create foam on agitation and/or aeration. Foam is a problem because it alters the liquid flow and blocks oxygen transfer from air (therefore preventing microbial respiration in fermentation processes). For this reason, anti-foaming agent compounds, like silicone oils, are added to prevent these problems.

Foaming around the mouth can be a symptom of rabies in animals. The term sea foam is used to describe the foam that forms on top of seawater from the action of waves. In some ways, leavened bread is a foam, as the yeast causes the bread to rise by producing tiny bubbles of gas in the dough.

Look up *foam* in Wiktionary, the free dictionary.

## Structure of foams

Real-life foams are typically disordered and have a variety of bubble sizes. The study of idealised foams is closely linked to the mathematical problems of space-filling and minimal surfaces. The Weaire-Phelan structure is believed to be the best possible (optimal) unit cell of a perfectly ordered foam, while Plateau's laws describe how the soap-films form structures in foams.

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